

CVT4K-S

Fiber Converter



Specifications

Change History

Document Version	Release Date	Description
V1.1.0	2026-07-27	• Updated the optical connector description. • Updated the dimensions diagram. • Updated the input power.
V1.0.7	2026-04-08	Added a note for the installation height of this product.
V1.0.6	2024-10-25	Updated the power consumption information.
V1.0.5	2023-12-11	Updated the power supply information.
V1.0.4	2021-09-28	• Updated the appearance diagram. • Updated the dimensions diagram. • Added the powerCON, installation, certification and power consumption related description.
V1.0.3	2021-02-06	• Updated the dimensions diagram. • Updated the quantity of screws in the accessories. • Deleted the certificate of approval in the accessories. • Updated the certification information.
V1.0.2	2020-11-20	• Updated the document template. • Optimized the feature description. • Optimized the appearance description. • Optimized the dimensions diagram.

Introduction

The CVT4K-S is a high-performance fiber converter developed by NovaStar Tech Co., Ltd. (hereinafter referred to as NovaStar). It is used for conversion between optical signals and electrical signals, allowing for long-distance signal transmission that is stable and not easily interfered with. Easy to use, the CVT4K-S makes it convenient to connect terminal devices and simplifies on-site wiring connections.

Certifications

CE, RoHS, FCC, UL&CUL, EAC, CB, IC, RCM

If the product does not have the relevant certifications required by the countries or regions where it is to be sold, please contact NovaStar to confirm or resolve the problem.

Otherwise, the customer shall be responsible for the legal risks caused and NovaStar has the right to claim compensation.

Features

- 16x Neutrik Ethernet inputs or outputs
- 4x Single-mode twin-core LC optical ports, two as master inputs or outputs and the others as backup
- Dual redundant power supplies, more stable and reliable
- 2 types of power connectors (3-pin power socket and powerCON), satisfying different customer needs
- 2 types of control ports (Type-B USB and Ethernet), more flexible and convenient to connect a control computer
- Various indicators on the front panel to show device status clearly

Appearance

Front Panel

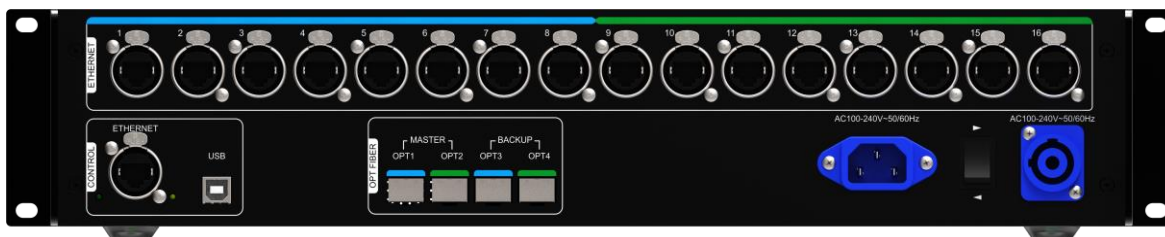


All product pictures shown in this document are for illustration purposes only. Actual product may vary.

Indicator	Color	Status	Description
1-16	Green	Always on	The Ethernet cable connection is normal.
	Yellow	Flashing	There is data transmission.
		Always on	There is no data transmission.
OPT1-OPT4	Green	Always on	The optical fiber connection is normal.

Indicator	Color	Status	Description
PWR	Red	Always on	The power input is normal.
STAT	Green	Flashing	The device is functioning normally.

Rear Panel

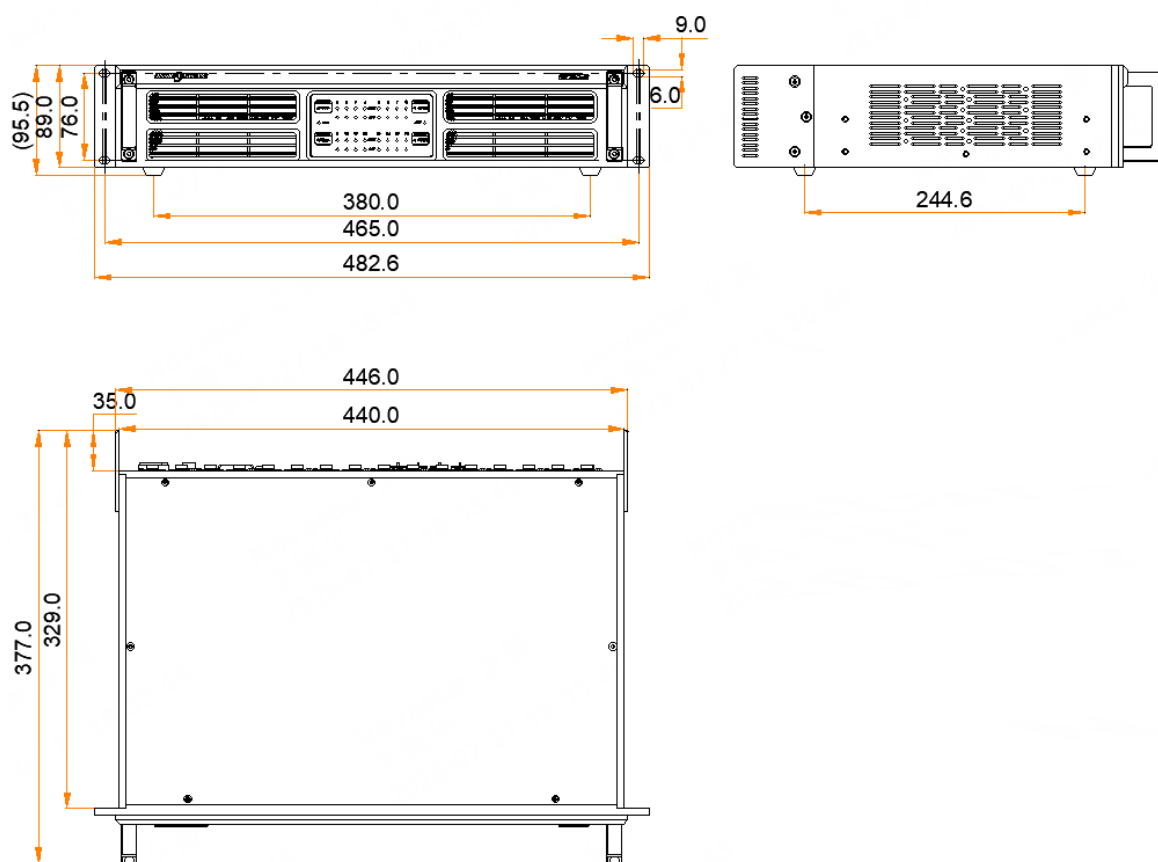


All product pictures shown in this document are for illustration purposes only. Actual product may vary.

Name	Description		
OPT1–OPT4	4x optical ports for data input or output - When the CVT4K-S is used with a sending card that supports the old encoding, CVT4K-S OPT1 corresponds to Ethernet ports 1–8, OPT2 corresponds to Ethernet ports 9–16, OPT3 is the backup for OPT1, and OPT4 is the backup for OPT2. - When the CVT4K-S is used with a sending card that supports the new encoding, CVT4K-S OPT1 corresponds to Ethernet ports 1–10, OPT2 corresponds to Ethernet ports 11–16, OPT3 is the backup for OPT1, and OPT4 is the backup for OPT2. For details, please consult NovaStar FAE. <table border="1"> <tr> <td> Description of the optical module: - Installed at the factory, hot pluggable - Transmission rate: 9.95 Gbit/s to 11.3 Gbit/s - Wavelength: 1310 nm - Transmission distance: 10 km </td><td> Optical fiber selection: - Model: OS1/OS2 - Transmission mode: Single-mode twin-core - Cable diameter: 9/125 μm - Connector type: LC - Insertion loss: ≤ 0.3 dB - Return loss: ≥ 45 dB </td></tr> </table>	Description of the optical module: - Installed at the factory, hot pluggable - Transmission rate: 9.95 Gbit/s to 11.3 Gbit/s - Wavelength: 1310 nm - Transmission distance: 10 km	Optical fiber selection: - Model: OS1/OS2 - Transmission mode: Single-mode twin-core - Cable diameter: 9/125 μm - Connector type: LC - Insertion loss: ≤ 0.3 dB - Return loss: ≥ 45 dB
Description of the optical module: - Installed at the factory, hot pluggable - Transmission rate: 9.95 Gbit/s to 11.3 Gbit/s - Wavelength: 1310 nm - Transmission distance: 10 km	Optical fiber selection: - Model: OS1/OS2 - Transmission mode: Single-mode twin-core - Cable diameter: 9/125 μm - Connector type: LC - Insertion loss: ≤ 0.3 dB - Return loss: ≥ 45 dB		
1–16	16x Neutrik Gigabit Ethernet ports for data input or output		
ETHERNET	Ethernet port for control computer connection		
USB	Type-B USB port for control computer connection, not for cascading		

Name	Description
AC 100-240V~50/60Hz	Power input connectors, including a 3-pin power socket and a powerCON socket It is not recommended to hot-plug powerCON connectors. Il n'est pas recommandé d'effectuer un branchement à chaud sur les connecteurs powerCON.

Dimensions



Tolerance: ± 0.3 Unit: mm

Specifications

Electrical Specifications	Input power	AC 100-240V~50/60Hz
	Rated power consumption	21 W
Operating	Temperature	-20°C to +60°C (-4°F to 140°F)

Environment	Humidity	10% RH to 90% RH, non-condensing
Storage Environment	Temperature	-20°C to +70°C
Physical Specifications	Dimensions	482.6 mm × 377.0 mm × 96.0 mm
	Net weight	4.6 kg
Packing Information	Carrying case	530.0 mm × 193.0 mm × 420.0 mm, white cardboard box
	Accessory box	405.0 mm × 290.0 mm × 48.0 mm, white cardboard box
	Accessories	• 1x Power cord • 1x Ethernet cable • 1x USB cable • 12x M4*10 screws
	Packing box	550.0 mm × 440.0 mm × 210.0 mm, kraft paper box

Power consumption may vary depending on various factors such as product settings, usage, and environment.

Notes and Cautions

Notes for Installation

- The product can be mounted in a standard 19-inch rack capable of withstanding at least four times the total weight of the mounted equipment. Four M5 screws should be used to fix the product.
- For safety reasons, the product shall only be installed at a height no more than 2 meters above the ground when mounted on walls, ceilings, or other exposed locations.



Caution

The product must be installed in a restricted access location.

L'équipement doit être installé dans un endroit à accès restreint.

FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Others

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

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Statement

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